Obedience to the Laws of Health, a Moral Duty.

A

LECTURE,

DELIVERED BEFORE THE

American Physiological Society,

JANUARY 30, 1838.

BY ELISHA BARTLETT, M. D.

BOSTON:
PUBLISHED BY JULIUS A. NOBLE.
No. 111 Washington Street.

Reel 74-76, 2-6

BOSTON, FEBRUARY 9, 1838.

DEAR SIR:—

At a meeting of the American Physiological Society, on Wednesday evening last, it was voted unanimously, that the thanks of the Society be presented to you, for your able and interesting address before us on Tuesday evening, January 30, and that you be requested to furnish a copy for the press.

Very respectfully,

Your obedient servant,

J. KILTON, Rec. Sec'y.

To Hon. ELISHA BARTLETT, Lowell.

LOWELL, FEBRUARY 10, 1838.

DEAR SIR:—

In reply to your letter of yesterday, containing the vote of the Physiological Society, I have only to say, that if the views contained in my lecture are thought by the Society of sufficient importance to be made public, it is at their disposal. The lecture was very hastily written, amid many and pressing duties, and I regret that I had not time to have made it more worthy the good opinion of the Society, and the subject of which it treats.

With acknowledgments to yourself and to the Society, for their civilities, and for yours, I am

Very respectfully,

Your friend,

ELISHA BARTLETT.

To J. KILTON, Esq., Boston.

ADDRESS.

I HAVE chosen for the subject of my lecture, this evening, THE MORAL DUTY OF OBEDIENCE TO THE PHYSIOLOGICAL OR ORGANIC LAWS. Generally, men are urged to this obedience on the ground of utility. They are told that, their interests will be promoted by a regard to the laws and conditions of their bodily well-being; that if they obey these laws, they shall reap the rewards of such obedience; that if they disobey them, they must suffer the appropriate penalties of such disobedience. In this spirit, have the hygienic laws of physiology been taught, and in a like spirit, have they usually been received and acted upon. The teacher says,—do this, and you shall have health and long life; do it not, and your portion shall be physical infirmity, premature decay, and, perhaps, an early and untimely death. The pupil listens and answers,—I know well enough, that all which you say is true, and that it is for my interest to give heed to it; but, notwithstanding all this, if I choose to follow my own inclinations, and to abide the result, whose business is it but my own? I have an absolute, and an

exclusive right to do as I like in this matter. It is an affair of my own, in which, it is not for you, nor for any body else, to intermeddle. My body and my mind are mine, and so long as the manner in which they are treated touches the interests and affects the welfare of no one but myself, by what code of morals am I denied the right and privilege of a full and free magistracy over them?

I have not a word to say in abatement of the utility of obedience to the laws of physiology. I admit this to its fullest extent. I grant also, that it should be urged as a reason why men should obey these laws. I freely allow that it must and does act as a powerful motive. But it is not the highest motive. We have only to look about us, and within us, to see, that in very many instances, it is wholly inadequate to secure the obedience of which I have spoken. There are thousands of men, who have made themselves acquainted with many of the most important laws of their bodily and mental constitution, who know perfectly well, the retributions, both of good and ill, linked inseparably to these laws, and who, nevertheless, influenced by no higher motive than that of their own individual interests, frequently and flagrantly violate them, or disregard them utterly. The reasons, why this is so, are numerous. I will mention one or two of them. In the first place, the motive resting on mere interert, or utility, or profitableness, is a selfish one; and, in a great majority of cases, it is not sufficiently strong to resist the blind and importunate cravings of appetite and inclination. One selfish motive is here brought into opposition to another, and it is altogether a matter of chance which of the two shall prevail. All motives of an exclusively selfish or expedient character, are impo-

tent in trying emergencies. That honesty is the best policy we are willing to admit; but we must also admit that such honesty as springs only from policy, is but a dwarfish and sickly virtue; a plant, that may put forth its blossoms, and look gaily enough, so long as it is nursed by the sunshine, and fed by the dew, but which withers away in the first drought, or is torn up and scattered to the winds, by the first breath of the storm. Again, very many of the penalties, and especially of the heaviest penalties of transgressing the physiological laws, are not immediate in their effects, but remote. There is thus given us time and opportunity for a calculation of chances, and in making this calculation, we usually manage to find a way of escape. We mean to transgress only so far as we can do it *profitably*—gaining more by the animal indulgence, whatever it may be, than we shall lose by the subsequent forfeiture. At any rate, we mean to trangress only so far as we can do it with ultimate safety. What the common issue is, of this process of reasoning, with its corresponding course of practice, every body knows; and each day of our lives do we have occasion to see and lament it.

I shall not take up your time with any elaborate definitions or illustrations of what I mean and what is commonly meant by the words *moral duty*. Some men, who have passed in the world for philosophers, have maintained, that there is no such faculty in the mind as a sense of duty,—a feeling of right and wrong,—excepting as it grows out of a calculation, either of personal interest, or of the general good. I shall presume, on the present occasion, that I am addressing those who believe, what common sense philosophy has always taught, that there

is, in every soundly constituted mind, an innate consciousness,—a quick and irrepressible instinct,—a feeling, as inseparable from a healthy mind, as polarity is from the magnet,—of right and wrong. Widely, indeed, do the minds of men differ, so far as the original strength, and the fidelity to its functions, of this principle, is concerned. In some it is vastly more powerful and active than it is in others. Wordsworth, in his beautiful ODE TO DUTY, says,

> "There are who ask not if thine eye
> Be on them; who in love and truth,
> Where no misgiving is, rely
> Upon the genial sense of youth;
> Glad hearts! without reproach or blot,
> Who do thy work and know it not."

But, almost universally, are its culture and development neglected amongst us. One of the noblest faculties of the soul, more than any other is its importance overlooked and its education disregarded. Still, in some feeble degree, at least, is every man aware of the life and occasional stirrings, in the depths of his being, of this, its central monitor;—at some time or other, will he hear, amid the clamorous din of the passions, and the harsh discord of angry and rival appetites, crying fiercely for indulgence, the whisperings of its still, small voice within him;—and obedience to the monitions of this voice, is what I mean by moral duty.

It must be obvious enough, that the proposition, in which the subject of my lecture is embraced, can hardly be made a matter of detailed and formal argument. I cannot ask you to follow me through a train of logical reasoning, or of metaphysisal disquisition, in order to prove that the proposition is a true one. I put in no

claim to the possession of metaphysical acumen. I shall shoot at no game on the wing, or in the bush. I shall aim at no target among the stars. I shall content myself with the humble office of attempting to illustrate the truth which I assume, and to show its reasonableness; and for this purpose, I shall present to you some few of the leading principles of hygienic physiology, which I wish you to consider in a moral point of view. I shall ask you to look at them as subjects of moral duty. They will be new to you, no farther than they may become so, by being seen in a new aspect, or through a new medium.

We can study man only in his present state of being. We know nothing of him as a subject of science, excepting as he now exists. And in this, his actual condition, he is made up of a soul and a body. He is constituted by the union of flesh and spirit. His nature is two fold. These two elements are the essential components of humanity,—the lower and the perishable,—just as much as the higher and the immortal. Every attempt at their separation is a violence done to this nature. The spiritual transcendentalist, who would make our true and highest humanity consist in an utter abnegation of the claims and rights of the body, is as certainly in error, as the sensualist. They both mutilate humanity,—they destroy its proportions,—they attempt, violently and unnaturally, to sunder what God has joined together. They would break up that beautiful union, which was established and consecrated, when the breath of life was breathed into the nostrils, and man became a living soul.

I shall first say a few words of the duty, which we owe to this body, considered in itself,—constituting a

component part of the true man. I do not now speak of its relations to the mind. I do not speak of its physiological relations to the bodies and the minds of others. These I will remember by and by. Even if it sustained no such relations as these, are we at liberty to degrade and destroy it? There are certain physiological laws, obedience to which is necessary in order to secure the well being of this body. Many of these laws are very well ascertained. The lungs, for instance, must be duly supplied with a sufficient quantity of that element,—unadulterated and unvitiated,—which has been fitted for their use. The skin must be kept free from those impurities, which are inevitably and constantly accumulating upon it. The digestive organs must be furnished with their proper quantity and quality of aliment. The muscles must be called into frequent and active exercise. The exhausted powers of the whole physical organization must be recruited and refreshed by suitable intervals of unconscious repose. This body, apart from its relations to the mind, was created for noble ends, and these ends can be answered only by securing its fullest development, its finest perfection. As if to impress us with its worth and its dignity, it has been made in its structure, and in the adaptation of its thousand parts to their various uses, the most wonderful of all God's material works with which we are acquainted. As it was the last, so was it the most elaborate and finished of his marvellous creations, made in his own image. Not only so, but amid all the lavish and multiform beauty of the universe, no where is there any thing which approaches in perfection and fullness that of the human body. By its side all other beauty is tame; in its presence is all other majesty

mean. Beautiful as are many of the products of human art,—temples and palaces, with their infinite variety and combinations of columns, and arches, and architraves,—with their graceful or gorgeous adornments,—how poor are they all when compared with the Venus of the Tribune at Florence, or the Apollo of the Vatican at Rome! What are all the landscapes that ever smiled or frowned on canvas to the angelic beauty of the Madonna della Seggiola? The high purposes, I have said, to which the body was intended to be devoted, can be accomplished only by obedience to the physiological laws. This body in the present arrangement of things, is frequently called upon, in the discharge of some duty higher than any which it owes to the laws of its own constitution, to the exertion of great physical strength, or to the endurance of sustained and protracted efforts. How else, in many instances, can be repelled the aggression of lawless violence and wrong? How else can succor be carried to those who are in suffering and peril? How else can love sustain its long watchings, by day and by night, at the bed-side of sickness and pain? How else, with a great majority of mankind, can the daily wants of life be supplied, and means provided, that the wife and children, who may be dependent upon us, shall be fed, and sheltered, and clothed, and educated? Such are some few of the high functions of the body, and what right have we, by a wilful and selfish violation of the laws which the Creator of this body has imposed upon it, to unfit it for these noble uses? Certainly none.

I wish not to be misunderstood. I am no advocate for an exclusive, or over-regard for the good of the body. I would have no one place his chief affections in it, or

seek in it his highest interests. I would keep all its claims subordinate to those of the mind. Whenever the interests of the two come into collision,—as in our actual state of being must frequently happen,—let the former be sacrificed, unhesitatingly, and wholly. Whenever loyalty to the cause of truth and duty involves the exposure and injury of the body, or its devotion to the scaffold, or the faggot, let it go. When God utters the command, let the offering be laid on the altar, though it be the eldest born that he requires at our hands. If the spirit must be robbed of its purity, or the body must be burned, then let the fire have its victim,—let the martyrdom be made,—and so shall the Phœnix escape, with no stain on its plumage, with no blot on the brightness of its immortal wings. Utterly loathsome, too, is that regard for the body, common enough, which looks no farther than making it an object for the idle gaze and the empty admiration of mere fashion and frivolity,—which values it chiefly as a thing to be tricked out in finery, to bow and to dance with, and wherewithal to act soft nonsense gracefully. Far be it from me to encourage, in any way, this feeling. With widely different sentiments, and to far other ends, as I have already said, should the welfare of the body be sought. And I rejoice, that this welfare is beginning to receive the attention which it deserves. I rejoice that the term "physical education" is coming to be familiar to our ears. The institution of this Society and of these Lectures is an encouraging indication. I trust that not always is the world to be peopled with so feeble and puny a race as now constitute its inhabitants. Not always are pale cheeks, and hollow eyes, and early wrinkles, and narrow chests, and lank limbs, and flabby

muscles, and tottering steps to meet us at every corner. In that dream of future human good, which Science and Revelation alike justify us in cherishing, one of the most delightful spectacles, which offers itself to my individual vision, consists in the physical perfection of our race. Then shall the dwellers on the earth again walk its surface, as did our first parents in Eden, when they,

> "Erect and tall,
> Godlike erect, with native honor clad,
> In naked majesty, seemed lords of all;
> And worthy seemed; for in their looks divine
> The image of their glorious maker shone,
> Truth, wisdom, sanctitude, severe and pure.—
> * * * * * * * * * * *
> For contemplation he and valor formed,
> For softness she and sweet attractive grace,—
> He for God only, she for God in him;
> His large, fair front and eye sublime declared
> Absolute rule; and hyacinthine locks
> Round from his parted forelock manly hung,
> Clustering, but not beneath his shoulders broad."

Premature death, as well as imperfect development, stinted growth, feebleness, and disease, is one of the frequent and direct consequences of disobeying the organic laws. Suicide is everywhere regarded as a crime. We look upon the body of the self-murderer with horror. The law, even in some christian countries, refuses to his guiltless remains the rites of decent sepulture. Rude indignities have been ordered to be perpetrated upon them, and they have been sanctioned by the popular feeling. The body has been buried by the road side, and a stake driven through it, to mark the unsanctified place of its rest.

> Shame and dishonor sit
> On his grave ever,
> Blessings shall hallow it
> Never, O, never.

Now, why is it less culpable to destroy this body, gradually and deliberately by violating the conditions upon an observance of which only, can its life be prolonged, than it is to destroy it, suddenly, by the stab of a knife, or by a dose of opium? What right have we in the one case, that is not as clearly ours in the other? What guilt attaches to the one case, that does not equally belong to the other? It may be answered, perhaps, that in one there is an intention to destroy life, which does not exist in the other; and that this circumstance, as in the law, makes a wide difference. But even in human legislation, the intent to kill is not always necessary to constitute murder, or to subject the perpetrator to the last penalties of the law. And the exception to the general rule is exactly in point. A man who destroys the life of a fellow man, while in the act of committing some other penal offence, although the murder was unintentional, is still held responsible for the deed.

But the human body has other relations, which make it a moral duty that we should study and obey the conditions of its well being. I speak now of its relations to the mind. These relations, in consequence, of enlightened and rational physiological study, are coming to be better understood than they formerly were. The wiser students of nature amongst us have at last begun to apply to this most interesting and important subject, the same simple and true method of investigation which has been productive of such valuable and positive results in all other departments of knowledge. They have, for the most part, abandoned those idle and vain speculations upon the essence of mind, and upon the nature of the mysterious bond that links it to the body, which have

constituted so much of the barren and misnamed philosophy of mind. Nature, when interrogated in honest, intelligible language, and in a meek, earnest, and docile spirit, gives no mystical, or oracular responses. She has not done so in the present instance. She has faithfully answered all faithful inquiries. To those who have reverently entered this inner sanctuary of her temple, she has revealed its before hidden mysteries. Acceptable at last has the offering been found which Science has laid upon this her holiest altar.

The general result of these physiological researches, in regard to the relations of the mind to the body, has been the establishment of this *law*,—an elementary and universal principle of our complex spiritual and physical being,—that the mental manifestations, in all their extent and variety, have been made, during our present mode of existence, more or less dependent upon the states and conditions of our bodily organs. Such is the LAW. Such is the ordination of the Father of our spirits and the Framer of our bodies. I do not propose now to enumerate all the particular modes in which this law exhibits itself. No sound physiologist of the present day, so far as I know, doubts the general proposition, whatever may be his opinion in regard to some of its forms, and details, and applications. I wish, however, to insist particularly upon the *closeness*, the *intimacy*, of the relationship between the spiritual and physical elements of humanity. This body is not the house, merely, of the soul. It is something more than an outside dwelling, within whose chambers, the spirit sits at ease, an independent occupant. It is something more than a mere trunk, with legs and arms, and an upper tuberosity, which we call a head. It

is transfused with spirit, as the atmosphere of noon is with light. You can hardly touch the one, without at the same time touching the other. They grow together. They have alike their infancy, their youth, their manhood, and their age. They delight alike in the sweet influences of nature,—in the brightnes of a clear day,—in the invigorating breath of a pure and bracing air. Nightly, sink they together in sleep,—together wake they again in the morning, rested and refreshed. A fit of indigestion may ruffle the most placid disposition, or render, for the moment, the most generous spirit churlish and mean; a twinge of the gout may embitter the sweetest temper. A distinguished medical teacher of this city used to say, in his lectures to his class; Never ask a man for a favor just before dinner. Menenius, when told of the unsuccessful mission of Cominius to his friend Coriolanus, exclaims,—

> "He was not taken well, he had not dined;
> The veins unfilled, our blood is cold, and then
> We pout upon the morning, are unapt
> To give or to forgive: * * * therefore I'll watch him
> Till he be dieted to my request,
> And then I'll set upon him."

"He had a fever when he was in Spain," says Cassius of the mighty Cæsar,

> "And when the fit was on him, I did mark
> How he did shake; 'tis true this god did shake.
> His coward lips did from their color fly,
> And that same eye whose bend doth awe the world,
> Did lose his lustre."

Slight disarrangement of the organic fibres and molecules of the brain will change chastity itself to a Satyr,—the compassionate man to a fiend,—the hero to a fear-struck

slave, and the most giant-like intellect to drivelling idiocy.

If, then, this closer than fraternal fellowship exists between the mental and bodily constitution,—if we do, by preserving and improving the health and vigor of the body, maintain and strengthen the health and vigor of the mind, does it not follow, of necessity, from this consideration alone, that conformity to all those conditions upon which bodily health depends is as much and as strictly a moral obligation, as is obedience to any command of the decalogue?

Let me guard against a possible misapprehension. I speak, in this lecture, of the mind and the body, solely as subjects of science. I treat them as matters of human observation, in their present condition. I study them as they are, and not as they shall be. I say nothing of the nature or the destiny of the spirit. The misapprehension to which I allude is this. From the method in which I treat this subject, you might possibly infer, that I disbelieved in the immortal nature, and the continued and, hereafter, independent being of the human soul. God forbid! No! Thanks be to Him, and to that spirit which He has given me, I have no such disbelief. The soul of man, that very child of God, cannot be the only unmeaning and anomalous thing among his works,—it cannot be a solitary, discordant lie, where every thing else is such harmonious truth,—all which it must be, if there is for it no life but this.

There are some curious modifications, or forms of the general principle that I have stated, to which I wish, very briefly, to solicit your attention. The first is the very different effect produced by obedience to the or-

ganic laws, or by a violation of them, upon the higher and upon the lower faculties of the mind ;—obedience to the law exciting the activity of the one class, and disobedience exciting the activity of the other. Thus while the intellectual and moral powers are developed and invigorated by strict conformity to the organic laws, the selfish passions and instincts are excited and inflamed by many of the departures from these laws. An easy and active performance, by all the organs of the body, of their several functions, conduces to the strength and activity of the intellectual operations. I do not mean to say that intellectual vigor is always connected with and dependent upon herculean strength of muscle or herculean size of body. I know that in very many instances; the reverse of this is true. But, still, I apprehend, that notwithstanding the apparent exceptions which may be cited, we shall find, that the most remarkable examples of extraordinary, long continued and sustained intellectual effort have been co-existent with a sound and stable physical organization, and with a corresponding fidelity to the essential conditions of health. Where the contrary to this has seemingly been the case, it will appear that the great intellectual exertion, productive, as in many instances it may have been, of noble and splendid results, has been of short continuance, followed by exhaustion. Oftentimes too, a morbid and unnatural stimulus has goaded on, for a limited period, the easily excited intellect, leaving it, after the factitious delirium had subsided, jaded and worn out. It is almost invariably true, that those violations of the physiological laws, consisting in intemperate and sensual excesses, ultimately becloud the intellect, and enfeeble the moral sentiments, while they

stimulate into a blind and fearful activity, the selfish and animal powers. The sot has a besotted mind. The miserable victim of strong drink, the luxurious lover of high living, the decrepid debauchee, tainting the very air with corruption, each and all, totter on to the grave, the light of intellect feeble and dim, the pure and radiant glory of the moral and religious feelings extinguished and gone forever; but with their several ruling appetites, strong from indulgence, still burning in their bosoms,—lurid and murky fires of an unquenchable hell,—the unappeasable gnawings of the worm that never dies.

Another modification, of an analogous character, is found in the very remarkable fact, that, almost always, where obedience to the moral and organic laws has given to the high and disinterested sentiments their rightful supremacy, these sentiments do not partake in the general feebleness, or the utter prostration of the other mental faculties, which is usually present, when the body is suffering under grave disease, or when it is approaching the final termination of its being. Then, how often does it happen, that the intellect, however much and rightly it may have interested itself with its legitimate and appropriate objects, voluntarily and joyfully abandons them. However strongly it may have attached itself, even to the highest and noblest scientific truth, then it lets go its hold. The mathematician no longer busies himself with his intricate and difficult problems;—the chemist forgets his laboratory;—the philologist closes his lexicon and grammar;—the gaze of the astronomer is no longer fastened on the stars. The delights of science are now fled,—the charm of literature and art is gone,—all human wisdom becomes comparatively a vain thing. Still more

strikingly true is all this of the lower desires and instincts. Where now are the innumerable forms of selfishness? Where now are vanity and pride? Where now is the love of power, and of honor, and of gain? All at rest. Their tumultuous agitations have ceased,—they shall vex the bosom no more. But amid all this languor of the intellect, and humiliation of selfish desire, and feebleness of body, with what a new and unwonted power do the high capacities of the soul put themselves forth! All at once is there given to them a supernatural energy. The sense of right and duty becomes an omnipotent principle. Kingdoms could not seduce, nor the powers of darkness move it from its fidelity. Benevolence and love run over, like gushing fountains of sweet waters. Adoration lifts up the spirit to its author and rewarder. Hope, on wings of celestial strength and beauty, stretches away her flight into the far depths of eternity, and lays hold on the future life. If to any, even the slightest possible extent, conformity to the conditions of our bodily good, tends to these high issues, does not such conformity become, manifestly, a moral duty?

The third and last physiological law, which I shall ask you to look at in a moral light, is that of *hereditariness*, or the transmissibility of physical and mental qualities from parents to their offspring. The existence of this law, is as certain as that of any principle of natural science. It is yet, however, but very partially and imperfectly understood. Its investigation is surrounded with many difficulties, and it will be only after long and diligent observation, that we shall be able to ascertain, accurately and in detail, all its important operations. But the great truth itself, so far only as it is now admitted

and understood, is sufficient for my present purpose. And a very important consideration, in a moral point of view, connected with it, is the fact, that not only may such characteristics as we have received from our progenitors, become the inheritance of our children, but that acquired conditions of body and qualities of mind are subject to be transmitted from parents to their offspring, and this, of course, alike, whether these conditions and qualities be good or bad. How frequently is this seen to be the case with many kinds of disease! Many a son, yet guiltless of wine and fat living, has been wrung by the tortures of his father's or his grandfather's gout. Look about you, each in his own little circle of friendship or acquaintance, and you will not fail to find whole families upon which consumption has set its seal of death. In the parents, violations, by themselves, of the organic laws, have brought on this disease, or predisposition to it. And then the elements of premature decay are mingled with the very principle of life in the offspring. The children are arrested in their progress towards manhood and womanhood, and one after another, they go, trooping off, in melancholy procession, to an early grave.

It needs no argument, I trust, to show that if our own transgressions of the laws of health are thus, as they most certainly are, liable to be visited, and this with accumulating power, upon the heads of our children, and of our children's children, to the third and fourth generations, we cannot be guilty of these transgressions, without disregarding our highest moral duties.

It is high time that these physiological relations should be understood. The whole of life is given up to toil and drudgery, the body is sacrificed and the mind degraded, in order that men may bequeath to their children,

houses and lands, and money, which they can neither occupy nor use; while shattered constitutions, and minds unbalanced, or diseased, are entailed upon them with no remorse or misgiving.

It would enlighten and strengthen our conviction of the truth, which I have thus, very imperfectly and partially, to be sure, but sincerely and earnestly, attempted to illustrate, were we to regard these laws of which I have spoken, as the INSTITUTIONS OF THE CREATOR. They are as much a revelation of his will, as any miraculous or supernatural manifestation of it, that He has seen fit to make. They declare his purposes as truly, and as emphatically, as did ever any message of inspiration. They are as much the voice of God, as when it was uttered, audibly, amid thunder and smoke from Sinai; and we are as much bound to obey it. The commandments which God has written in the constitution of these mortal bodies are as obligatory as are those which were graven by his finger on the tables of stone. The rewards of obedience to them are as sure,—the penalties of disobedience are as inevitable. And, furthermore, this revelation is a universal revelation. It was made prior to all others. Its records are in the universal language of humanity, and it is liable to no misinterpretation.

The first pre-requisite to an enlightened obedience to the physiological laws must necessarily be *a knowledge* of these laws. Physiology, as an important department of strict medical science, has long been studied, ardently and successfully. But, till very recently, it has been considered as the exclusive province of learned or professional men. It has been regarded as a fit subject only for the lecture room of the medical teacher, or the amphitheatre of the anatomist.

"The proper study of mankind is man,"

the poet said, long ago, and the sentiment, in various forms of phraseology, had been uttered a thousand times before he said it, and it has been echoed as many times since. But the truth of the saying has never been fully and practically felt, and it is, even now, only beginning to be realized, in all its vast and various significance. True Physiology, by which I mean the whole study of man,—his bodily and mental organization, with their thousand fold relations and mutual dependencies,—constituting the broad and comprehensive STUDY OF HUMANITY is a new science. As a science, and as the chiefest,—as the very end and crowning glory of all the rest,—it is of modern origin. The *laws*, which have impressed upon man's bodily and spiritual nature,—written there in characters as imperishable as if they had been inscribed in starry words, on the arch of the midnight sky,—these laws, impressed upon his whole being, for its government and good, and acting as invariably as those which rule the motions of the planets, are, now, only *beginning* to be studied and known.

Most of the evil, which has filled the earth with suffering, has been the legitimate offspring of an ignorant or a wilful violation of these laws. Disobedience was the primal human offence,—

> "the fruit
> Of that forbidden tree, whose mortal taste
> Brought death into the world, and all our wo,
> With loss of Eden;"

it was the curse which drove out the first man from that garden of peace in which God had placed him, and which has ever since been the flaming sword, turning every way, and guarding its gates against the return of his pos-

terity. Disobedient to the laws of his bodily organization,—disease, and physical pain, and premature death have been his sad and common heritage. Disobedient to the laws of his moral constitution, this, his spiritual and nobler nature, has been dwarfed in its development, or perverted in its action, thus adding, to the ills of the body, all possible forms of moral evil. By no other means, next to Christianity, can the truest interests of our race be so effectually promoted, as by the general diffusion of true physiological science. That man will be the greatest benefactor to his species, who shall be most successful in explaining, in establishing, and in rendering popular this whole SCIENCE OF HUMANITY.

It is important that the facts of hygienic physiology, so fast and so far as they are fully ascertained, should be taught as *laws*,—as invariable and unbending in their operations as are the laws of natural philosophy. Let it come to be seen, and understood, that the order of sequence, between cause and effect, is as fixed and certain here as it is every where else in nature ;—that obedience to the law always has its reward,—and that violation of the law will be visited by its special and appropriate penalty, just as certainly as that the application of a lighted torch to gunpowder will be followed by its explosion.

May I venture to suggest, that it is our duty to enter this field of investigation, and always to occupy it, in a spirit of candid and rational inquiry. Very many of the hygienic laws are yet but partially ascertained. The entire subject is beset with many difficulties, and it is only by long-continued, varied, cautious, discriminating, honest observation and study that these difficulties can be overcome. On many important points of hygiene, there are wide differences of opinion. These differences can

be reconciled and the truth arrived at only by careful and extensive philosophical research. Conclusions, prematurely formed, and resting on insufficient data, built up into the shape and semblance of an entire and perfect system, may here, as has been the case in all other departments of science, injure the credit and impair the usefulness of what is really and positively true, while they tend, also, to obstruct its progress. Especially should angry, polemical invective, and over-bearing self-confident, arrogant dogmatism, never be permitted to enter the precincts of science. They have no place there. They drive away the truth, which, to be had, must be *won*. They darken and put out the light, which they pretend to have discovered.

When the science of Physiology, in its relation to our bodily and mental well-being, is thus thoroughly understood, a second means of securing obedience to its precepts is to urge their importance as a matter merely of present interest, comfort and happiness. Motives derived from these considerations will have their influence, and should not be overlooked; although, as I have already said, they are not of the strongest and most efficient character.

The third means should be that upon which I have chiefly insisted in this lecture. So long as human nature remains what it is, a knowledge, ever so perfect, of the conditions of bodily health, and a conviction, ever so strong, of our interest in complying with them, will not be sufficient to secure, universally, this compliance. When appetite and passion are opposed only by the knowing and reasoning powers, the former are quite as likely to prevail as the latter. The call of present animal gratification is seldom silenced by the voice of the

understanding alone. Among the several powers, whose combination makes up the human mind, one only wears the insignia and is ever clad in the majesty of absolute and kingly rule. This is *conscience;* and when all the subordinate faculties,—sentiments, intellect, and instincts, —arranged in the order which the Creator has instituted, —are devoted, in harmonious activity, each to the performance of its appropriate office, then do they constitute, truly, a bright hierarchy, faithful, all of them, to each other, and loyal, all, to the arch-angelic power at their head. High happiness, also, and the sweetest delight, as well as freedom, strength and security, are the fruits of this subordination. The poet whom I quoted in the early part of the lecture, addresses *Duty* in these words:—

"Stern Law-giver! yet thou dost wear
The Godhead's most benignant grace;
Nor know we anything so fair
As is the light upon thy face.
Flowers laugh before thee on their beds,
And Fragrance in thy footing treads;
Thou dost preserve the stars from wrong,
And the most ancient heavens through thee are fresh and strong."

Instead of endeavoring to lop off, with instruments of human device, the branches of the Upas, let its trunk be riven, and its roots consumed by lightning called down from the sky. Instead of vainly attempting, with mud and stone, to stay the current of bitter waters, let us either sweeten or dry up the fountain. Let us commit the keeping of our bodies, as well as of our spirits, into the hands of *conscience*, and then shall they be made fit temples for the dwelling of the Most High God. Then shall they be set apart and consecrated to His will and to the service of Humanity.